EFFECTIVENESS OF GINGER TEA ON MORNING SICKNESS AMONG ANTENATAL MOTHERS IN SELECTED VILLAGES, SALEM.

By

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CERTIFICATE

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ABSTRACT

The main focus of the study was to determine the effectiveness of ginger tea on morning sickness among antenatal mothers. The study was conducted in Karipatti and Minnampalli villa ges, Salem. The antenatal mothers were selected by non-probability convenience sampling method. The sample size was 60, i.e 30 for experimental group and 30 for control group were selected. Quasi experimental design was used for this study. The level of morning sickness was assessed by using Modified Rhodes Index Nausea and Vomiting Scale. The effectiveness of ginger tea was evaluated by 't' test, the chi-square analysis was done to associate the level of morning sickness among antenatal mothers with their selected demographic variables.

The overall pre-test and post-test level of morning sickness in the experimental group, the mean pre-test morning sickness score was 11.7? 1.98, and the mean post-test mean score was 6.8 ? 0.91. The calculated 't' value at p? 0.05 level for morning sickness (2.93) showed that ginger tea was effective in reducing morning sickness among antenatal mothers. There was significant association between the level of morning sickness with their selected biographic variables like age and type of family in the control group. There was significant association between the level of morning sickness with their selected pregnancy related variables like diet in the experimental and control group.

CHAPTER - I

INTRODUCTION

Pregnancy, a physiologically demanding process and its outcome is strongly influenced by the nutritional status of the mother. **(CP.Thersyamma, 2003)**

Pregnancy is a long and very special journey for the women due to the changes that occurs during motherhood. Every pregnancy is a unique experience for the women and each pregnancy that the woman experience will be new and uniquely different **(Davis, 2002)**.

Pregnancy is not just a matter of waiting to give birth. It is often a defining phase in woman's life. It can also be one of the misery and suffering period.

Motherhood is a great responsibility and it is woman's highest crown of honour. Therefore maintaining good health during pregnancy is very important especially in the present stressful life.

The reason for high maternal mortality in the country are hemorrhage, eclampsia, anemia, obstructed labour and puerperal infections, there are approximately 77,000 maternal deaths per year. Which in other words mean one women dies every 7 minutes due to complications related to pregnancy. Maternal health and nutrition in turn are dependent on age, genetic, socio-economic as well as educational status.

Morning sickness is most common term used to describe the nausea that often comes during the first three months of pregnancy, known medically as "Nausea and vomiting of pregnancy (NVP). Although it occurs most commonly after waking in the morning, for many pregnant women it can also happen during the day time. The illness is caused by sudden and dramatic hormonal changes that occur during early

pregnancy nausea with or without vomiting is known as morning sickness but frequently occurs during the day or evening. **(Elieen Brayshow, 2001).**

Morning sickness generally starts around 4 – 6 weeks of pregnancy and may continue till 16 weeks. Usually it is present in the early morning and reduces as the day progresses. In some cases, however sickness may continue throughout the day. **(Mudaliar and Menon's, 2003)**

Nausea and vomiting are troublesome symptoms occurring in the 1st trimester of pregnancy, nausea and vomiting generally improves around the 16th week of pregnancy, but until that time may cause such weakness for the women to affect her daily life. **(O'Brien and Smith C, et.al., 2001)**

The midwife may suggest remedies such as eating a dry biscuit before rising in the morning, avoiding spicy or pungent odours, eating small and frequent meals will help to maintain the body's blood sugar level and having small amounts of fluid in between the meals will help to maintain hydration. **(Evans et.al., 2003)**

Need for the Study

In earlier studies, it was reported that 90% women experienced some degree of nausea and vomiting during pregnancy while only 0.5 to 2% had hyperemesis gravidrum. **('O' Brien and Naber, 1999)**

The research team collected data from the medical birth registry of Norway. 9,00,000 first time pregnancies registered in the medical birth registry of Norway over a 40 year period. In that 300 cases were recorded as hyperemesis gravidrum.

According to a report published by Med. India, women born in India and Srilanka are three times more likely to suffer from extreme nausea and vomiting (morning sickness) during pregnancy.

Nausea vomiting affect about 70-80% of pregnant women. In 20% of nausea vomiting cases, symptoms persist throughout pregnancy, incidence of human chorionic gonadotrophic hormone seems to be about 0.8% or 0.9%. More specially 28% of pregnant women experience nausea only, while 52% experience nausea and vomiting, 20% of pregnant women will have no symptoms at all. **(Conningham, et.al., 2009)**

The effects of morning sickness are often under estimated by those who have not suffered through it. Morning sickness can greatly upset a pregnant women in daily activities and sense of well being. Many women suffer and endure lifestyle disruptions, missed work, sleep disturbances, fatigue and irritability due to morning sickness **(Hansee and Peacock, 2002)**

The symptoms commonly start 5 weeks after conception and end by week 15 in 60% of affected women 9% of affected women have symptoms persist beyond 18th week of pregnancy. The most severe form of morning sickness is known as hyperemesis gravidarum (emesis means vomiting, gravidrum means pregnancy) where persistent vomiting leads to dehydration and weight loss. **(O' Brien and Naber, 1999)**

Nausea and vomiting of pregnancy have a 30% lower chance of miscarriage and still birth than pregnant women with no morning sickness symptoms. **(Davis, 2002)**

More than 70% of all pregnant women experience nausea and vomiting during pregnancy and 28% report that symptoms cause them to change their usual activity. **(Gabbe, Niehyl & Simpson, 1999)**

Fresh ginger contains 80.9% moisture, 2.3% protein, 0.9% fat, 1.2% minerals, 2.4% fibre and 12.3% carbohydrates. The minerals present in ginger are iron, calcium

and phosphorous. It also contains vitamins such as thiamine, riboflavin, niacin and vitamin C. **(Govindarajan, V.S., 2003)**

Ginger stimulates blood circulation throughout the body and increase the cellular metabolic activity. **(Winston J. Craig, 2010)**

The effect of ginger was similar to that observed with 100mg metaclopramide. In addition, a double blind study in 27 pregnant women suffering from morning sickness demonstrated that oral administration of 250mg of powdered ginger 4 times daily over 4 days significantly reduced symptoms of nausea and vomiting.**(Ernst, E. and Pittler. M H., 2002)**

Ginger tea was a cost effective intervention in reduction of morning sickness since for some women, it was very debilitating, that conventional antiemetic bring with them a risk of potential teratogenic effects during the critical stage of pregnancy. Women tend to feel more comfortable taking a natural or herbal substance to manage the issues of nausea and vomiting.

Based on the above study, the researcher had developed special interest to conduct an interventional study by giving ginger tea to reduce morning sickness among selected antenatal mothers.

Statement of the Problem

A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem.

Objectives

1. To assess the level of morning sickness among antenatal mothers in experimental and control group.
2. To determine the effectiveness of ginger tea on morning sickness among antenatal mothers in experimental and control group.

3. To associate the morning sickness among antenatal mothers with their selected demographic variables in both experimentaland control group.

Operational Definitions

1. Effectiveness :

It refers to significant reduction of morning sickness after administering ginger tea as verbalized by the antenatal mothers.

2. Ginger tea:

Ginger tea refers to tea prepared with ginger and sugar. 500mg of ginger in 200ml of water. This will be administered twice a day.

3. Morning sickness :

It refers to the experience of nausea and vomiting during pregnancy.

4. Antenatal mothers :

Antenatal mothers refers to the women who are pregnant with 4-16 weeks of gestation.

Assumptions

1. Women may have knowledge regarding home remedies of morning sickness.
2. Women who are pregnant will have morning sickness.
3. Ginger tea may have effect on morning sickness.

Hypotheses

H_1: There will be a significant difference in the level of morning sickness among antenatal mothers in experimental and control group at p? 0.05 level.

H_2: There will be a significant association between the level of morning sickness among antenatal mothers with their selected demographic variables at p? 0.05 level.

Delimitations

1. The study period was limited to 4 weeks only.
2. The study was limited to 60 samples only.
3. The areas of the study was limited to Minnampalli and Karipatti villages only

ProjectedOutcome

This study would determine the effectiveness of ginger tea on morning sickness. The findings of this study helped to reduce the morning sickness among antenatal mothers.

Conceptual Frame Work

The conceptual framework selected for the study is based on Rosenstock's Health Belief Model (1974). This model explains how individual perception, cues to action and demographic variables develop the perception of threat in individual which encourage them to adopt certain measured to overcome that problem or threat.

Individual perception:

Antenatal mother feels uncomfortable with morning sickness and that is affecting their daily routine activity.

Modifying factors:

Modifying factors focuses on three variables such as,

- Demographic variables
- Structural variables
- Socio-psychological variables

Likelihood of action:

The likelihood of action that a person will take an action involves the person's perceptions of the benefits of taking action. Here the researcher found that there was significant reduction in level of morning sickness and mother expressed willingness to continue taking recommended action.

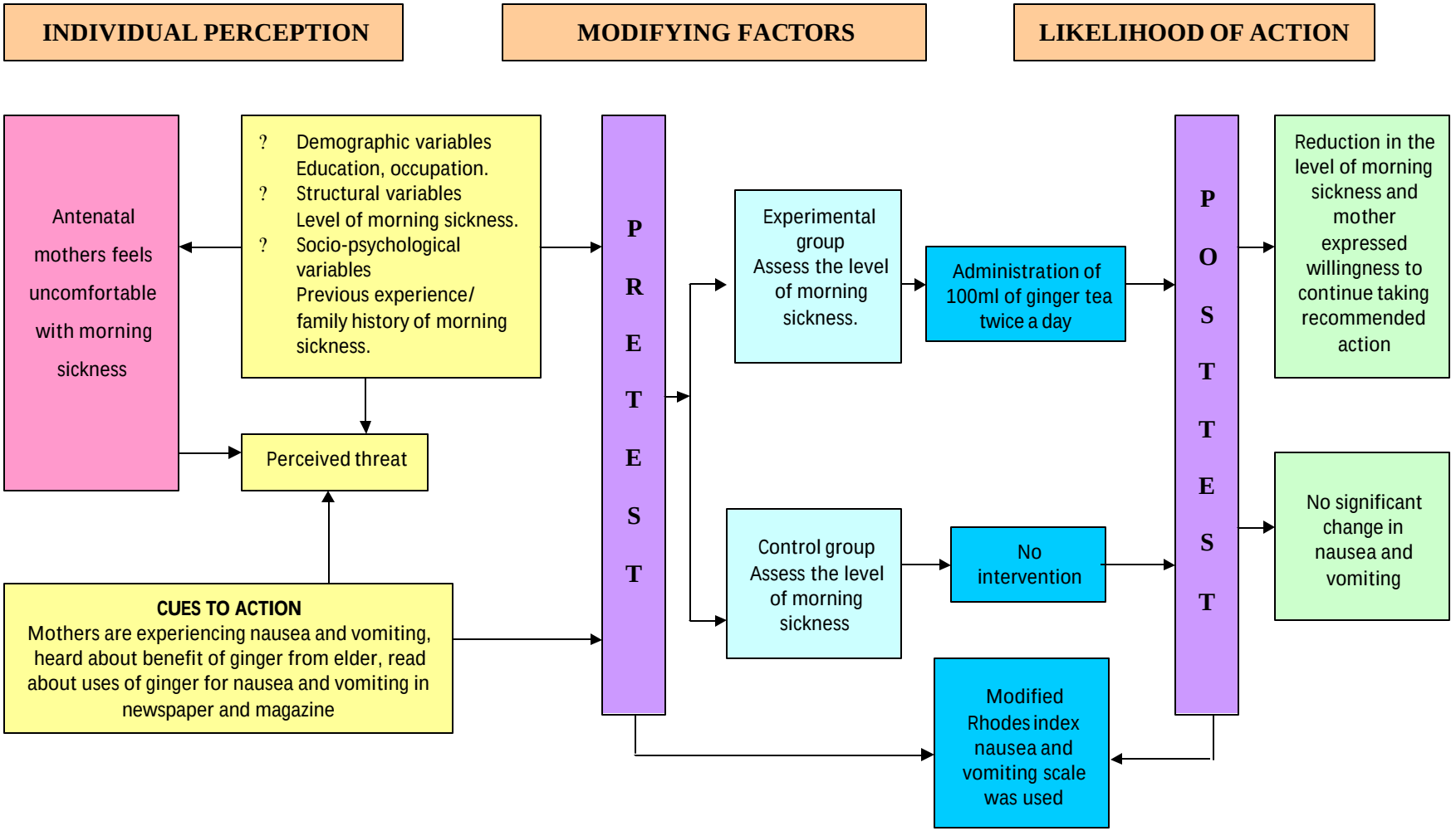

FIGURE-1.1: CONCEPUTAL FRAME WORK BASED ON ROSENSTOCH'S HEALTH BELIEF MODEL (1974)

Summary

The first chapter consists of introduction, need for the study, statement of the problem, objectives, operational definitions, assumptions, hypotheses, delimitations, projected outcome and conceptual frame work.

CHAPTER -II

LITERATURE REVIEW

The extensive review was made to strengthen the present study in order to lay down the foundation which helps to reveal the prevailing situation of the similar studies in different areas. Existing studies and information are often indispensable in helping the researcher to focus on a particular problem and to formulate suitable research process.

"Review of literature is an important step in development of a research project". It involves the systematic identification, location, scrutiny and survey of written material that contains information on a research problem. Reviewing of literature is important as broadening the understanding and insight necessary for development of the conceptual context, in which the problem fits **(Polit and Hungler, 2003).**

I. Literature related to Nausea and vomiting

II. Literature related to Intake of Ginger for nausea and vomiting.

I. Literature related to Nausea and Vomiting

Kughara. T. Dashi. K, Osaka, (2006) conducted a study at Osaka University, Japan. The purpose of this study was to clarify the characteristic of nausea and vomiting during pregnancy (NVP) and to determine the relationship between NVP and quality of life. To NVP measure using the Rhodes Index Scale. Nausea and retching at 4-7 and 12-17 weeks was significantly more severe than at 16-19 weeks, where as there was no difference in vomiting. A decrease in physical well being was correlated with the severing of nausea, retching and vomiting 8-11 and 12-17 weeks,

suggesting that professionals should carefully measure NVP symptoms using reliable instrument.

Gadsay, (2004) undertook a prospective study of nausea and vomiting among 435 women in Leicester University Medical School, UK. The result of the study showed that 20% had no symptoms, 28% had nausea only and 52% had both nausea and vomiting. The mean 40% of the patient symptoms ended abruptly. It was conducted that the condition is best described as episodic, day time pregnancy of nausea and vomiting.

Jeffrey D., Quinlan, (July, 2003) nausea and vomiting of pregnancy, commonly known as morning sickness. Nausea and vomiting of pregnancy is generally mild, self may be controlled with conservative measures. The condition has been shown to be more common in urban women one study identified increased risk in housewives and decreased risk in professional while women who consumed alcohol before conception and in women with a history of infertility.

Gadsay, Barnie-Adshead and Jagger, (2003) undertook a prospective in University of Leicester. The symptom of nausea and vomiting in pregnancy were described by 363 pregnant women who kept daily symptom dairies. It was found that 80% of women had symptoms, 28% experienced nausea only, while 52% had nausea and vomiting. The median total number of hours of nausea per pregnancy in those 292 women experiencing symptoms was 56hrs with peak symptoms occurring in the ninth week.

Arsenaultmy, Lane, Mackinnon, Barteller, Cargill, Klein, Martel and Wilson, (2002) conducted a study to findout the relationships between the severity of nausea and vomiting during pregnancy and selected demographic variables, that is employment status, parity, age, smoking, pregnancy outcome, birth weight and

gender. Women who volunteered for a community based clinical trials and willing to respond to mailed questionnaire were eligible for inclusion in this study, on three occasions, 12 hrs a part, during early pregnancy using a continuous measure of nausea and vomiting and retching, women assessed the amount, duration of nausea, vomiting and retching as well as pregnancy outcome. Multivariate methods were used to analyse data. The result of the study showed more severe vomiting in early pregnancy and was likely to continue for a longer period of time. It was concluded that it may be possible to identify women at risk for third trimester vomiting and to provide appropriate nutritional support and counseling.

Lacroix, Eason, Melzack, (1999) conducted a study to provide description of patterns of nausea and vomiting of pregnancy in Canada. 160 women who can provide daily recording of frequency, duration and severity of nausea and vomiting were selected. The results of the study showed that 74% of women reported nausea lasting a mean of 34.6 days only 50% women were relieved by 14 weeks gestation and 90% had relief by 22 weeks.

II. Literature related to Intake of Ginger for Nausea and Vomiting.

Wiley, Blackwell, (2010), there are currently no reliably safe and effective for morning sickness, according to coherence researchers who conducted a systematic review of the available evidence. There was very limited evidence for all pharmaceutical and alternative medicines tested, the review randomized controlled trails, which together involved 4041 women who were upto 20 weeks pregnant, benefit was measured by various scales commonly used to gauge the severity of nausea at a times a close as possible to 3 days after treatment. In six studies of acupressure and two of acupuncture. There were no significant differences in benefit compared to control groups. One study of acustimulation did however report some

improvement over 3 weeks. There was limited evidence of an effect of ginger in relieving nausea, as there was for vitamin B6 antihistamines and antiemetic (antivomiting) drug including the antenatal drug Debendox.

Anu.K, Kamalesh K. Sharma, (2009), ginger root power is found to be significantly effective, when given as an add on therapy in reducing nausea and vomiting in children and adolescents receiving chemotherapy, it is very cost effective and as compared to the other add on therapy drug like Aprepitant.

Vikanes. A, Grjibovski. A.M, Vangen. S and Magnus. P, (2008), mothers born in India and Sri Lanka had the highest prevalence of hyperemesis gravidarum, followed by those born in Africa (excluding North Aftrica) and Pakistan by 3.2%, 3.1% and 2.1% respectively. Ethnic Norwegians, North Americans and Western Europeans had the lowest prevalence by 0.9%, 0.9%, and 0.8% respectively. Maternal age between 20-24 years old, being married, carrying a female fetus or more than one foetus were all socio-demographic characteristics associated with a higher prevalence of hyperemesis gravidarum. Mothers born in India and Sri Lanka are 3 times more likely to suffer from extreme nausea and vomiting in pregnancy then ethnic Norwegians. This findings come from Norweyian Institute of Public Health study.

Sheehan.P, (2007) conducted a study to outline the etiology, outcomes, history and examination of women with nausea and vomiting and retching during pregnancy. Pregnant women's attending maternity care program at Royal Women Hospital, Australia were selected. Randomized control design was used. The study results shows nausea, vomiting and retching in early pregnancy, commonly affects a significant number of all women during pregnancy, that 66-75% of gravid women experience nausea, 18-44% experience significant vomiting in that 25-45%

experience retching with vomiting during pregnancy, nausea, retching and vomiting of pregnancy typically begin at 4-6 weeks of gestation.

Piwkoc. Ungar, WJ., Einarson. T.R., (2007) carried out a study with the main objective, to estimate the total direct and indirect costs per women for a week associated with the onset of nausea, vomiting and retching. The cost of illness was determined according to the severity of nausea, vomiting and retching. Data were collected from 139 pregnant women, who called for the mother risk program at the hospital for sick children, Toronto. The result revealed the total cost for a woman for week was $132 for women with mild, moderate and severe nausea and vomiting respectively. Cost increased with increasing severity of nausea and vomiting. The conclusion made was that nausea and vomiting of pregnancy imposes on economic burden.

Woolhouse, M., (2006) a family physician conducted a study at Australia. The study objective was to find out the most distressing symptoms in pregnant women. Two hundred women were randomly selected and observed. The conclusion were made that nausea affects upto 85% of women during early pregnancy and about half of these women also experience vomiting. For some woman, it was very debilitating, conventional antiemetics bring with them a risk of potential teratogenic effects during the critical stage of early pregnancy. Women tend to feel more comfortable taking a natural or herbal substance to manage the issues of nausea and vomiting.

Forrest and Tierson, (2005) conducted a study on nausea and vomiting of pregnancy and its associa tion with pregnancy outcome in University of Colorado, USA. Around 414 women were involved during the 12th week of pregnancy. The results showed that 89.4% participants had nausea and/or vomiting 10.6% had no

symptoms, 32.9% had nausea without vomiting, 2.9% had vomiting without nausea and 53.6% had nausea and vomiting. By the eighth week of pregnancy, nearly 80% of the women in the study had developed nausea and 70% were still actively experiencing nausea, 30% of women who had nausea had stopped having symptoms by the 12^{th} week and 50% had stopped having symptoms by the 15^{th} week and 25% were still having symptoms.

Fischer-Rasmussen and colleagues, (2003) conducted a small cross over study in 27 women suffering from hyperemesis gravidarum. Patient received ginger powder 25mg or placebo, four times daily for four day. Sickness was assessed using a symptom score. The results suggested a significantly $p<0.05$ greater symptomatic benefit after administration of ginger compared with placebo.

Bone and colleagues, (2003) studied 60 women before major gynaecological operations. Patients were allocated randomly to receive ginger 1g, metoclopramide 10mg or placebo as a single dose given with preoperative medication. The severity of post operative nausea was assessed on a 4 points scale. The incidence of nausea during the first 24 hrs after surgery was 28%, 30% and 51% in the ginger, metoclopramide and placebo groups, respectively. A statistically significant $p<0.05$ difference in favour of ginger compared with placebo was reported for the total number of incidents of nausea.

Keating and Chez, (2002) conducted a study to determine if ginger syrup mixed in water is an effective remedy for the relief of nausea and vomiting in the first trimester of pregnancy in University of South Florida. Subjects were enrolled from the 26 subjects in the first trimester of pregnancy, subjects ingested one tablespoon of commercially prepared syrup or placebo in 4 to 8 ounces of hot or cold water 4 times a daily. The main outcome measures, duration and severity of nausea and vomiting

over a two weeks period was measured on a ten point scale. 59 days the study results showed that ten of 13(77%) subjects receiving ginger had atleast a 4 points improvement on the nausea scale only two of the ten 20% remaining subjects in the placebo group had the same improvement, conversely, now others in the ginger group, but seven 70% of the women in the placebo group had a 2 points or less improvement on nausea scale eight of the 12(67%) women in ginger group who were vomiting daily at the beginning of the treatment stopped vomiting by day 6 only two in the ten 20% women in the placebo group who were vomiting stopped by day six. It was concluded that the ingestion of one gram of ginger in syrup in a divided dose daily may be useful in some patients experiencing nausea and vomiting in the first trimester of pregnancy.

Vutgavanich, Krausarin and Ruangsri, (2001) conducted a study to determine the effectiveness of ginger for the treatment of nausea and vomiting of pregnancy. 70 eligible women were randomized in a double masked design to relieve either oral ginger one gram per day or identical placebo for 4 days, subjects graded the severity of their nausea using visual analog scale and recorded the number of vomiting episodes in the previous 24 hrs before treatment and again during for consecutive days while taking treatment. At a followup visit seven days later, five point Likert scale were used to assess the severity of their symptoms findings from the visual analog scale indicated that nausea decreased significantly in the ginger group compared with the placebo group. The number of vomiting episodes also decreased significantly in the ginger group compared with the placebo group. Likert scale showed that 28-32 in the ginger group had improvement in nausea symptoms compared with 10 of 35 in the placebo group. No adverse effect of ginger on

pregnancy outcome was detected. It was concluded that ginger is effective for relieving the severity of nausea and vomiting of pregnancy.

Philips, Hutchinson and Ruggier, (2001), randomized 120 women before laparoscopic surgery to one of three similar treatment groups. The medication was given 1 hour before surgery and the incidence of nausea and vomiting was 21%, 27%, 41% in the ginger, metoclopramide and placebo groups respectively significantly at $p<0.006$). Fewer patients with nausea were reported in the ginger group compared with the placebo group.

Grontred and Colleaguesm (2001), one randomized was identified for chemotherapy induced nausea. Forty one patients suffering from leukemia were allocated randomly to one of two groups to receive either oral ginger or placebo, after administration of compazine. The results suggested a significant reduction in nausea in patients who received ginger compared with those who received placebo.

E.Ernst and M.H. Pittler, (2000) have performed 4 systematic review of randomized clinical trials for or against efficacy of ginger for nausea and vomiting. Six studies met all inclusion criteria and were reviewed. Three on postoperative nausea and vomiting were identified and two of these suggested that ginger was superior to placebo and equally effective as metoclopramide. The pooled absolute risk reduction for the incidence of postoperative nausea, however, indicated a non-significant difference between the ginger and placebo groups for ginger one gram taken before operation (absolute risk reduction 0.052 (95% confidence interval 0.082 to 0.186).

Summary

This chapter dealt with review of literature related to nausea and vomiting and Intake of Ginger for nausea and vomiting.

CHAPTER – III

METHODOLOGY

This chapter deals with a brief description of methodology which was undertaken by the investigator for the research study.

Research Approach

Quantitative evaluative approach was considered as an appropriate research approach to evaluate the outcome of planned nursing intervention on morning sickness among antenatal mothers.

Research Design

Quasi experimental design was used.

E	**O_1**	**X**	**O_2**
C	**O_1**		**O_2**

E - Experimental group

C - Control group

X - 100ml of ginger tea twice a day

O_1 - Pre-test on morning sickness

O_2 - Post-test on morning sickness

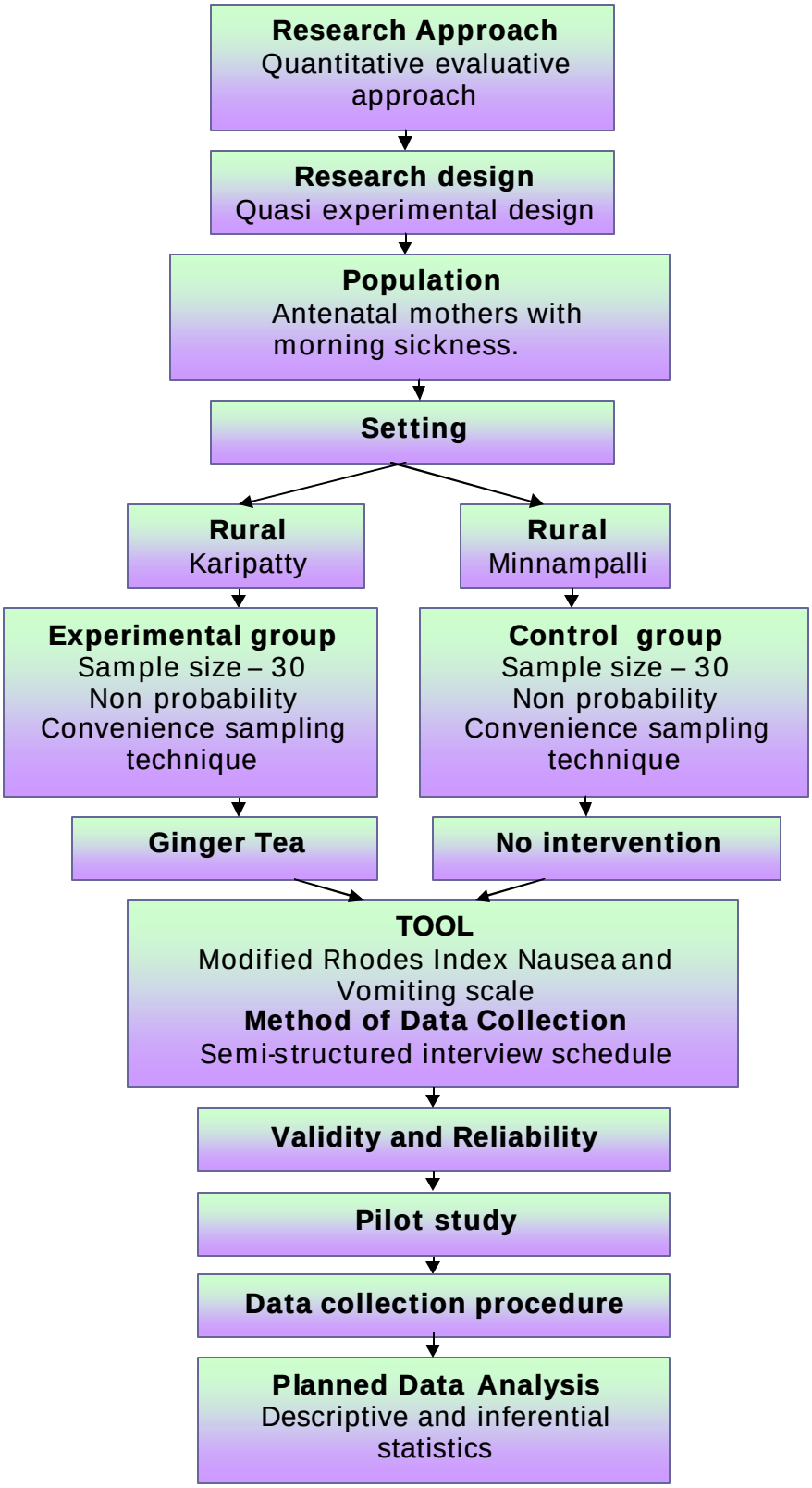

Figure -3.1: Schematic Representation of Research Methodology

Population

The population of this study includes, the antenatal mothers with morning sickness in Karipatti and Minnampalli Villages, Salem. The total population of both villages are 10,000. The registered antenatal mothers were around 100/ per month in each village.

Description of the Setting

The study was conducted in Karipatti and Minnampalli, rural communities Salem. These selected rural communities were located around 15 kilometers away from Sri Gokulam College of Nursing, Salem.

Sampling

Sample:

The sample of this study was antenatal mothers with morning sickness and who meet the criteria.

Sample size:

The sample size of this study was 60 antenatal mothers with morning sickness, (i.e.) 30 in experimental group and 30 in control group.

Sampling technique:

The investigator used Non-probability Convenience Sampling Technique.

Criteria for sample Selection:

Inclusion criteria:

Antenatal mothers who,

1. are with morning sickness
2. are in the age group of 18 – 35 years
3. are in the gestation age of 4-16 weeks
4. can understand and speak

Exclusion criteria :

1. Antenatal mother who are not willing to participate in the study.
2. Antenatal mothers who have complications of congenital heart disease, diabetic mellitus and systemic diseases.
3. Multiple pregnancy
4. Mother with hyperemisis gravidarum

Variables

Independent Variable **:** Ginger tea.

Dependent Variable **:** Morning Sickness.

Description of the Tool

Section-A: Demographic variables are age, education, occupation, religion, type of family, type of diet, gravid, weeks of gestation, family members had morning sickness, any home remedy for morning sickness.

Section-B: Modified Rhodes Index of Nausea and Vomiting Scale

Semi -Structured Interview Schedule was used.

Table -3.1: Interpretation of scoring procedure

Level of morning sickness	Score	Percentage
Mild nausea and vomiting	1- 6	0 – 50%
Moderate nausea and vomiting	7 - 12	51 – 75%
Severe nausea and vomiting	13 - 20	76 – 100%

Validity and Reliability

Content Validity of the tool was obtained on the basis of opinion from 1 Medical Expert, 2 Community Health Nursing Specialists, 1 Dietitian, 2 Obstetrics and Gynecology Nursing Specialists. Minor modifications suggested by the experts were incorporated in the demographic variables. The tools were translated into Tamil.

The reliability was established by Split-half method and was found r?? 0.88, which showed the tool was reliable.

Pilot Study

The pilot study conducted from 07.06.2010 to 12.06.2010 in Poolavari, Salem. It was conducted after the tool presentation and approval by college of nursing faculty and dissertation committee. Validity and reliability of the instrument were tested. Six antenatal mothers were selected through Non-probability convenience sampling technique. The tools were administered and checked for its feasibility, language and appropriateness. The samples were similar to characteristics to those of the population under study. The tool was found feasible, practicable and it helped to select suitable statistical methods.

Method of Data Collection

Ethical consideration:

Formal permission was obtained from the Panchayat President, Karipatti and Minnampalli villages, Salem. Informed consent was obtained from the antenatal mothers those who participated in the study

Period of data collection.

The study was conducted in selected rural communities of Salem from 5-7-2010 to 31-7-2010.

Data collection procedure

The antenatal mothers in Karipatti Panchayat were taken as the experimental group and the antenatal mothers in Minnampalli Panchayat were taken as the control group. The investigator divided the experimental group into 3 subgroups for convenience. The pre-test for the first, second and third subgroups of the experimental group were conducted on 06.07.2010, 14.07.2010 and 22.07.2010 respectively. The intervention was given a period of 1 week from the date of pre-test and during that period, the investigator provided 100ml of ginger tea twice a day. Post-test was

conducted on 13.07.2010, 21.07.2010 and 29.07.2010 for the first, second, third groups respectively. The pre-test for the first, second and third subgroups of control group were conducted on 07.07. 2010, 15.07.2010 and 23.07.2010 respectively and post-test were conducted on 14.07.2010, 22.07.2010 and 30.07.2010.

Plan for Data Analysis

Descriptive statistics mean and standard deviation will be used for categorical data. Independent 't' test will be used to determine the effectiveness of ginger tea and chi-square test will be used to associate the level of morning sickness among antenatal mothers with their selected demographic variables.

Summary

This chapter dealt with research approach, research design, population, description of setting, sampling, variables, and description of the tool, validity and reliability, pilot study, method of data collection and plan for data analysis.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a process of organizing and synthesizing data in such a way that question can be answered and hypothesis tested. **(Polit and Hungler, 2003)**

This chapter deals with the description of sample characteristics, analysis and interpretation of data collected from 60 antenatal mothers, in Karipatti and Minnapalli villages, Salem. The collected data were organized, coded, calculated and analyzed as per the objectives of the study under following headings.

Section–A: Distribution of antenatal mothers according to their demographic variables in experimental and control group.

Section–B: **a.** Distribution of antenatal mothers according to their pre test level of morning sickness among antenatal mothers in experimental and control group.

b. Distribution of antenatal mothers according to their post test level of morning sickness among antenatal mothers in experimental and control group.

Section-C: **a.** Comparison of pre and post test level of morning sickness among antenatal mothers in experimental and control group.

b. Comparison of mean, standard deviation and mean difference of morning sickness among ante natal mothers in experimental and control group

Section-D: Testing hypotheses

a. Effectiveness of ginger tea on morning sickness among antenatal mothers in experimental and control group.

b. Association between the level of morning sickness among antenatal mothers and their selected demographic variables in experimental and control group.

Section - A

Distribution of antenatal mothers according to their Demographic Variables in Experimental and Control Group

Table-4.1:

Frequency and percentage of antenatal mothers according to their biographic variables in experimental and control group

n=60

Sl. No	Biographic variables	Experimental group (n = 30)		Control group (n=30)	
		f	%	f	%
1.	**Age (in yrs)**				
	a. = 20	12	40	8	26.66
	b. 21 – 25	12	40	10	33.33
	c. 26 - 30	6	20	12	40
	d. > 30	-	-	-	-
2.	**Education**				
	a. Illiterate	2	6.66	3	10
	b. Primary education	18	60	14	46.66
	c. Secondary education	6	20	10	33.33
	d. Higher secondary education	4	13.33	3	10
	e. Under Graduate	-	-	-	-
	f. Post graduate	-	-	-	-
3.	**Occupation**				
	a. Home maker	30	100	30	100
	b. Employee	-	-	-	-
4.	**Religion**				
	a. Hindu	30	100	28	93.33
	b. Christian	-	-	2	6.66
	c. Muslim	-	-	-	-
	d. Others	-	-	-	-
5.	**Type of family**				
	a. Nuclear family	18	60	25	83.33
	b. Joint family	12	40	5	16.66
	c. Extended family	-	-	-	-

The above table shows that in experimental group 12(40%) antenatal mothers belong to less than 20 years of age and 12(40%) belong to 21-25 years of age. 18(60%) of them had primary education. All the 30(100%) were homemakers and belong to Hindu religion. 18(60%) belong to nuclear family.

In control group, 12(40%) antenatal mothers belong to 26-30 years age group, 14(46.66%) had primary education, all the 30(100%) were homemakers, and 28(93.33%) of them belong to Hindu religion. 25(83.33%) belong to nuclear family.

Table-4.2:

Frequency and percentage distribution of antenatal mothers according to their pregnancy related variables in experimental and control group

n=60

Sl. No	Pregnancy related variables	Experimental group (n = 30)		Control group (n=30)	
		f	%	f	%
1.	**Diet**				
	a. Vegetarian	-	-	7	23.33
	b. Non vegetarian	30	100	23	76.66
2.	**Gravid**				
	a. Primi gravid	17	56.66	23	76.66
	b. Multi gravida	13	43.33	7	23.33
3.	**Weeks of gestation**				
	a. 4 – 7weeks	8	26.66	2	6.66
	b. 8 – 12weeks	12	40	17	56.66
	c. 13 – 16weeks	10	33.33	11	36.66
4.	**Family history of morning sickness**				
	a. Yes	6	20	12	40
	b. No	24	80	18	60
5.	**Taking any home remedy for morning sickness**				
	a. Yes	6	20	5	16.66
	b. No	24	80	25	83.33

The above tables shows in experimental group 30(100%) antenatal mothers were taking non-vegetarian food. 17(56.66%) of them were primigravid mothers and 12(40%) were at 8-12 weeks of gestation, 24(80%) had no family history of morning sickness and 24(80%) were not taking any home remedies for morning sickness.

In control group 23(76.66%) were taking non-vegetarian food and 23(76.66%) were primigravid mothers. 17(56.66%) were at 8-12 weeks of gestations, 18(60%) of them had no family history of morning sickness and 25(83.33%) were not taking any home remedies for morning sickness.

Section - B

Distribution of antenatal mothers according to their Pre-test Level of Morning Sickness in Experime ntal and Control Group

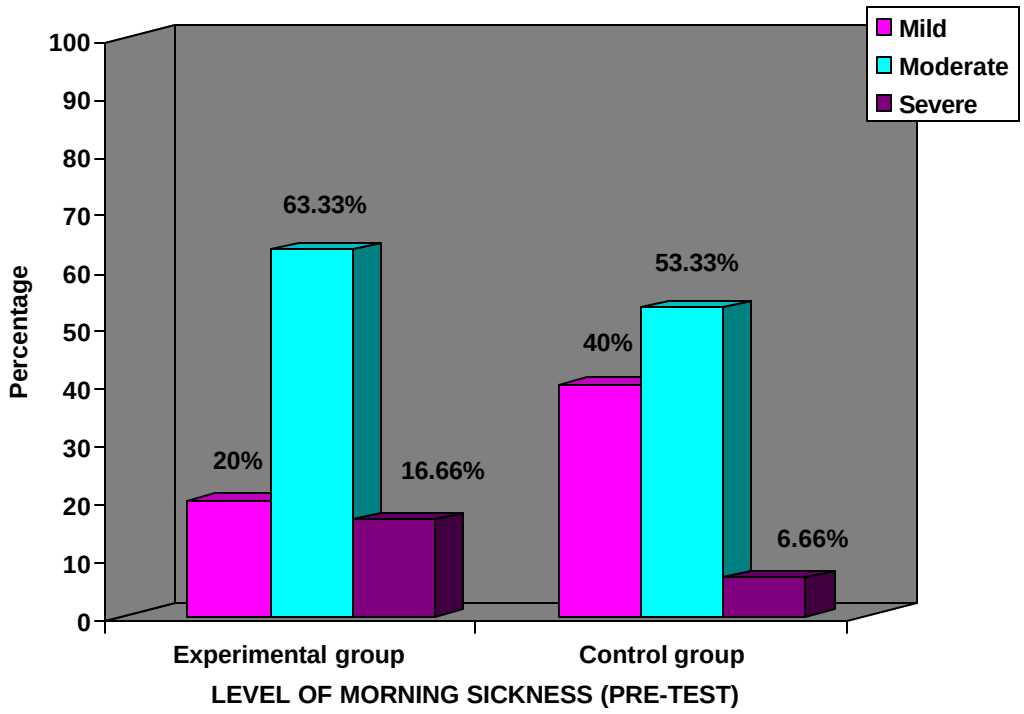

Figure -4.1: Percentage distribution of antenatal mothers according to their pre-test level of morning sickness in experimental and control group

Above figure shows that in experimental group, 6(20%) of antenatal mothers had mild morning sickness, 19(63.33%) had moderate morning sickness and 5(16.66%) had severe morning sickness in pre-test.

In control group 12(40%) of antenatal mothers had mild morning sickness, 16(53.33%) had moderate morning sickness, and 2(6.66%) had severe morning sickness in pre-test.

Distribution of antenatal mothers according to their Post-test Level of Morning Sickness in Experimental and Control Group

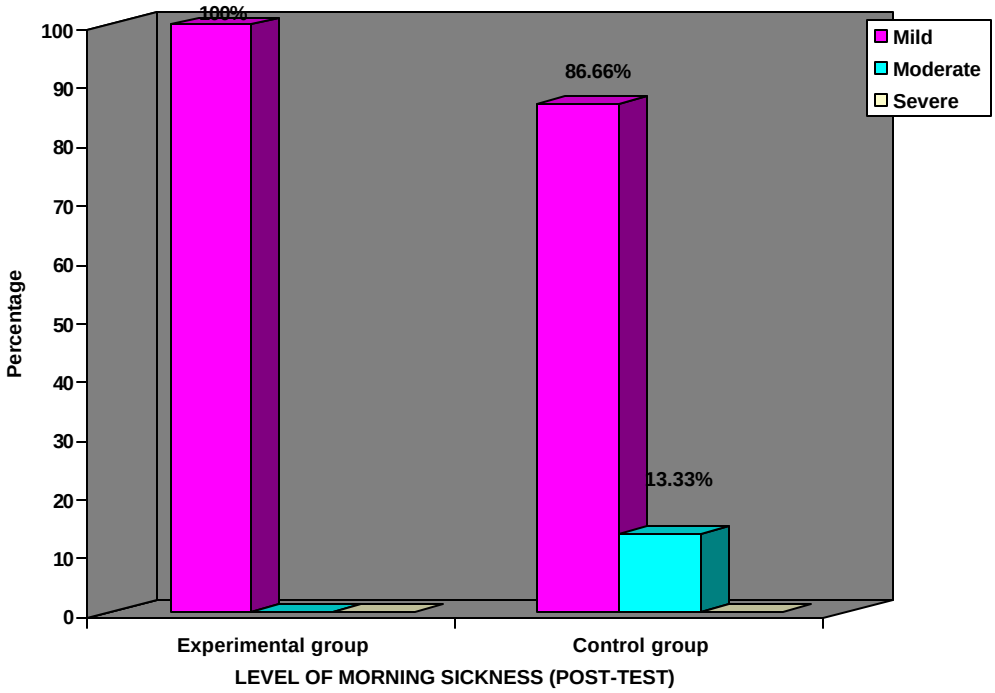

Figure -4.2: Percentage distribution of antenatal mothers according to their Post-test Level of Morning Sickness in Experimental and Control Group

Above figure shows that in post-test, 30(100%) of antenatal mothers had mild morning sickness in experimental group.

In control group 26(86.66%) of ante natal mothers had mild morning sickness, 4(13.33%) had moderate morning sickness.

Section – C

Table-4.3:

Comparison of pre and post – test level of Morning Sickness Among Antenatal Mothers in Experimental and Control Group.

n = 60

Sl. No	Level of morning sickness	Experimental group (n=30)				Control group (n=30)			
		Pre-test		Post-test		Pre-test		Post-test	
		f	%	f	%	f	%	f	%
1.	Mild	6	20	30	100	12	40	26	86.66
2.	Moderate	19	63.33	-	-	16	53.33	4	13.33
3.	Severe	5	16.66	-	-	2	6.66	-	-

Above table shows that in experimental group, 6(20%) antenatal mothers mild morning sickness, 19(63.33%) had moderate morning sickness and 5(16.66%) had severe morning sickness in pre-test. And in post-test 30(100%) had mild morning sickness.

Above table shows that in control group 12(40%) antenatal mothers had mild morning sickness, 16(53.33%) had moderate morning sickness, and 2(6.66%) had moderate morning sickness, and 2(6.66%) had severe morning sickness in pre-test and in post-test 26(86.66%) had mild morning sickness, 4(13.33%) antenatal mothers had moderate morning sickness.

Comparison of Mean, Standard Deviation, Mean Difference of Morning Sickness Among Antenatal Mothers in Experimental and Control Group.

Table-4.4:

Maximum score of Mean, Standard Deviation, mean difference of morning sickness among antenatal mothers in experimental and control group.

n = 60

Sl. No	Group	Maximum score	Pre-test		Post-test		Mean difference
			Mean	SD	Mean	SD	
1.	Experimental group	20	11.7	1.98	6.8	0.91	4.9
2.	Control group		9.7	2.95	7.7	1.73	2.0

The above table shows that, the overall pre-test and post-test level of morning sickness in the experimental group, the mean pre-test morning sickness score was 11.7? 1.98, and the mean post-test mean score was 6.8 ? 0.91. The mean difference was 4.9. In the control group, the mean pre-test morning sickness score was 9.7? 2.95 and the mean post-test morning sickness score was 7.7? 1.73. The mean difference was 2.

Section-D

Hypotheses testing

Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Experimental and Control group

Table-4.5:

Maximum score of Mean, SD, and 't' value of the post test level of morning sickness among antenatal mothers in experimental and control group

n=60

Sl. No	Group	Maximum score	Post-test		't'
			Mean	SD	
1.	Experimental group	20	6.8	0.91	2.93* (1.96)
2.	Control group		7.7	1.73	

***significant (p < 0.05 level)**

The above table reveals that, the calculated 't' value was 2.93 which shows a significant difference in the level of morning sickness among antenatal mothers in experimental and control group at $p<0.05$ level. Hence ginger tea was effective in reducing morning sickness and hypothesis H_1 was retained.

Association Between the Level of Morning Sickness Among Antenatal Mothers And their Selected Demographic Variables in Experimental and Control group.

Table-4.4.1 :

Chi-square test on morning sickness among antenatal mothers and their selected biographic variables in experimental and control group.

n = 60

Sl. No	Biographic variables	Experimental group		Control group	
		df	$?^2$	df	$?^2$
1.	Age (in yrs)	4	2.15	4	11.82*
2.	Education	6	3.99	6	6.735
3.	Occupation	-	-	-	-
4.	Religion	-	-	1	2.84
5.	Type of family	2	0.044	2	9.099*

***significant at (p < 0.05 le vel)**

The above table shows that in the experimental group there was no significant association between the level of morning sickness among antenatal mothers and their selected biographic variables. In control group there was a significant association between the level of morning sickness among antenatal mothers and their selected biographic variables, like age and type of family. Hence hypothesis H_2 was retained to variables like age and type of family only.

Table-4.4.2 :

Chi-square test on morning sickness among antenatal mothers and their selected pregnancy related variables in experimental and control group.

n=60

Sl. No	Pregnancy related variables	Experimental group		Control group	
		df	$?^2$	df	$?^2$
1.	Diet	2	6.03*	2	8.656*
2.	Gravid	2	0.83	2	1.09
3.	Weeks of gestation	2	0.244	4	1.8
4.	Family history of morning sickness	2	0.501	2	0.82
5.	Taking any home remedy for morning sickness	2	0.641	2	2.52

***significant at (p < 0.05 level)**

The above table shows that there was significant association between the level of morning sickness among antenatal mothers and their selected pregnancy related variable like diet in experimental group and control group. Hence hypothesis H_2 was retained only to variable like diet.

Summary

This chapter dealt with data analysis and interpretation in the form of statistical values based on the objectives. Frequency and percentage was used to distribute the samples according to their selected demographic variables and pretest level of morning sickness. 't' test was used to determine the effectiveness of ginger tea on morning sickness among ante natal mothers. The chi–square analysis was used to associate the level of morning sickness among ante natal mothers with their selected demographic variables in experimental and control group.

CHAPTER – V

DISCUSSION

This study was conducted to determine the effectiveness of ginger tea on morning sickness among antenatal mothers in selected villages, Salem. In relation to distribution of demographic variables,

In experimental group 12(40%) antenatal mothers belong to less than 20 years of age and 12(40%) belong to 21-25 years of age. 18(60%) of them had primary education. All the 30(100%) were homemakers and belong to Hindu religion. 18(60%) belong to nuclear family and all the 30(100%) were taking non-vegetarian food. 17(56.66%) of them were primigravida mothers and 12(40%) were at 8-12 weeks of gestation, 24(80%) had no family history of morning sickness and 24(80%) were not taking any home remedies for morning sickness.

In control group, 12(40%) antenatal mothers belong to 26-30 years age group, 14(46.66%) had primary education, all the 30(100%) were homemakers, and 28(93.33%) of them belong to Hindu religion. 25(83.33%) belong to nuclear family, 23(76.66%) were taking non-vegetarian food and 23(76.66%) were primigravid mothers. 17(56.66%) were at 8-12 weeks of gestations, 18(60%) of them had no family history of morning sickness and 25(83.33%) were not taking any home remedies for morning sickness.

The first objective of the study was to assess the level of morning sickness among antenatal mothers in experimental and control group.

In pre-test experimental group 19(63.33%) of antenatal mothers had moderate morning sickness, and 5(16.66%) of antenatal mothers had severe morning sickness. In pre test control group 16(53.33%) of antenatal mothers had moderate morning

sickness and 2(6.66%) had severe morning sickness. The morning sickness was assessed by Rhodes Index Nausea and Vomiting Scale.

Researcher assumes the majority of morning sickness was due to age and dietary habits. A need was felt to provide an intervention to reduce the morning sickness.

The second objective of the study to determine the effectiveness of ginger tea on morning sickness among antenatal mothers in experimental and control group.

In experimental group, the mean pre-test morning sickness score was 11.7? 1.98 and mean post-test mean score was 6.8? 0.91. The mean difference was 4.9.

In control group, the mean pre-test morning sickness score was 9.7? 2.95 and the mean post-test morning sickness score was 7.7? 1.73. The mean difference was 2.

The calculated 't' value at $p<0.05$ level of morning sickness (2.93) showed that ginger tea was effective in reducing morning sickness among the antenatal mothers. Hence hypothesis H_1 was retained

Schwangshi, GR., Macagofee. SC, (2005) had done a research which aimed to assess the clinical impact of ginger on nausea and vomiting early pregnancy, 100 randomized controlled trials were evaluated covering 1000 mothers in China, who received ginger and assessed during the period from 4-16 weeks of gestation. A total of 936 mothers responded to the ginger treatment. There is real evidence for the efficacy of ginger in the treatment of pregnancy induced nausea and vomiting without side effects.

The third objective of the study was to associate the level of morning sickness among antenatal mothers with their selected demographic variables in experimental and control group.

The present study finding reveals that in the experimental group there was no significant association between the level of morning sickness among antenatal mothers and their selected biographic variables. In control group there was a significant association between the level of morning sickness among antenatal mothers and their selected biographic variables, like age and type of family. Hence hypothesis H_2 was retained to variables like age and type of family only.

The present study finding reveals that there was significant association between the level of morning sickness among antenatal mothers and their selected pregnancy related variable like diet in experimental group and control group. Hence hypothesis H_2 was retained only to variable like diet.

Summary

This chapter dealt with the discussion of the study with reference to the objective and the supportive studies. All the three objectives have been obtained and the two hypotheses were retained in this study.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The main focus of the study was to determine the effectiveness of ginger tea on morning sickness among antenatal mothers. This study was conducted in Karipatti and Minnampalli villages, Salem. The antenatal mothers were selected by non-probability convenient sampling method. The sample size was 60, i.e 30 for experimental group and 30 for control group were selected. Quasi experimental design was used for this study. The data was collected by semi structured interview schedule method. The baseline data was tabulated by formulating frequency table. The level of morning sickness was assessed by using Modified Rhodes Index Nausea and Vomiting Scale. The effectiveness of ginger tea was evaluated by inferential statistics 't' test, the chi-square analysis was done to associate the level of morning sickness among antenatal mothers with their selected demographic variables.

Analysis revealed the mean value and SD of experimental group pre-test and post-test score was 11.7 ? 1.98 and 6.8 ? 0.91 and in control group mean value and SD was (9.7 ? 2.95) and 87.7 ? 1.73 the mean difference pre and post-test score was 4.9 and 2.0 at $p<0.05$ level indicating that there was a significant difference between experimental group with oral administration of ginger tea and control group without ginger extract.

Major findings of the present study showed there was a significant reduction in the level of nausea and vomiting in experimental group when compared with control group.

- In experimental group 12(40%) antenatal mothers belong to less than 20 years of age and 12(40%) belong to 21-25 years of age. 18(60%) of them had primary education. All the 30(100%) were homemakers and belong to Hindu religion. 18(60%) belong to nuclear family and all the 30(100%) were taking non-vegetarian food. 17(56.66%) of them were primigravida mothers and 12(40%) were at 8-12 weeks of gestation, 24(80%) had no family history of morning sickness and were not taking any home remedies for morning sickness.
- In control group, 12(40%) antenatal mothers belong to 26-30 years age group, 14(46.66%) had primary education, all the 30(100%) were homemakers, and 28(93.33%) of them belong to Hindu religion. 25(83.33%) belong to nuclear family, 23(76.66%) were taking non-vegetarian food and were primigravid mothers. 17(56.66%) were at 8-12 weeks of gestations, 18(60%) of them had no family history of morning sickness and 25(83.33%) were not taking any home remedies for morning sickness.
- In experimental group, 6(20%) of antenatal mothers had mild morning sickness, 19(63.33%) had moderate morning sickness and 5(16.66%) had severe morning sickness in pre-test, and in post-test 30(100%) of antenatal mothers had mild morning sickness.
- In control group 12(40%) of antenatal mothers had mild morning sickness, 16(53.33%) had moderate morning sickness, and 2(6.66%) had moderate morning sickness, and 2(6.66%) had severe morning sickness in pre-test and in post-test 26(86.66%) had mild morning sickness, 4(13.33%) of antenatal mothers had moderate morning sickness.

- ? The overall pre-test and post-test level of morning sickness in the experimental group, the mean pre-test morning sickness score was 11.7? 1.98, and the mean post-test mean score was 6.8 ? 0.91. The mean difference was 4.9. In the control group, the mean pre-test morning sickness score was 9.7? 2.95 and the mean post-test morning sickness score was 7.7? 1.73. The mean difference was 2.
- ? The calculated 't' value at p? 0.05 level for morning sickness (2.93) showed that ginger tea was effective in reducing morning sickness among the antenatal mothers. Hence hypothesis H_1 was retained.
- ? There was significant association between the level of morning sickness and their selected biographic variable s like age and type of family in the control group. There was significant association between the level of morning sickness and their selected pregnancy related variables like diet in the experimental and control group.

Conclusion

The result of the study showed that there was a significant difference in the level of morning sickness among ante natal mothers in experimental and control group. There was a significant association between the level of morning sickness and selected demographic variables in experimental and control group. Since ginger tea was a cost effective intervention in reduction of morning sickness among antenatal mothers, the health care professionals can take an important role in educating the antena tal mothers to adopt this safe and harmless intervention to reduce the morning sickness.

Implications

Nursing practice:

- The community health nurse is an active provider of maternal and child health services. She must practice assessing the level of nausea and vomiting among pregnant mothers during antenatal registration or as early as possible.
- Community health nurse as an administrator consider the cost effectiveness of using available resources in treating nausea and vomiting of the pregnant mothers and also saving the mother from teratogenic effects of antiemetic drugs.
- Arrange for public awareness about ginger and its uses widely for treating all the minor ailments like indigestion, sore throat, motion sickness and joint pain.

Nursing education:

- Nursing curriculum should be updated with inclusion of topics on various uses of natural remedies for the management of obstetrical conditions.
- Conferences, workshops and seminar can be conducted for nurses to impart knowledge on management of morning sickness.

Nursing administration:

- Necessary administration support should be provided to conduct programs on morning sickness.
- The administrator can organize conferences, workshops, seminars for nurses working in the community.
- Nurse administrators should be enthusiastic and should formulate policies for short and long term health education.
- Nursing administrator should encourage the nurse to educate the antenatal women regarding the use of natural remedies and its health benefits.

- ? Nursing administrator should make arrangements to see that sufficient manpower, money and material are available for disseminating health information.

Nursing research:

The study will be valuable reference material for further researchers.

- ? The study can be issued for further references into the field of natural remedies for the treatment of various obstetrical conditions.
- ? Nursing researcher should be aware of the new trends in the existing health care system.
- ? The results of the study will help the women to choose various natural remedies for treating minor ailments.
- ? More research can be performed in assessing the benefits of ginger and generalize the findings.
- ? By conducting various experimental researches, the nurse can develop the knowledge and skills in constructing, theoretical framework in nursing profession.
- ? Professionalism can be attained through research scholars in nursing research.
- ? The study findings can be disseminated through conference journals and World Wide Web.

Recommendations

Nursing research is not an end is itself, it arose from the end point to newer researchers. The study recommends the following research.

- ? A similar study can be undertaken on a larger sample in difference setting.

- A comparative study can be conducted between primigravid and multigravid mothers.
- A comparative study can be done to assess the effectiveness of natural remedy and pharmacological measures on relief of morning sickness.
- A comparative study can be done to assess the severity of morning sickness among various age group of antenatal mothers
- A comparative study can be done to assess the effectiveness of natural remedy and other alternative and complimentary therapies in reducing morning sickness.
- A longitudinal study can be conducted in assessing prevalence of nausea and vomiting among antenatal mothers.
- A descriptive study can be conducted on the impact of nausea and vomiting on physical and psychological burden life of the pregnant mothers.
- A retrospective study can be conducted on assessing the cost effectiveness on treating nausea and vomiting among antenatal mothers.

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ANNEXURE - A

LETTER SEEKING PERMISSION TO CONDUCT A RESEARCH STUDY

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

Date : 03-07-2010

To,

The President,
The Village Panchayat Office,
Karipatti, Salem.

Madam / Sir,

Sub: Permission to conduct a research study request - reg.

This is to introduce **Ms.RENUKA.K** Final year M.Sc., (Nursing) student of our college. She is conducting research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirement for the award of M.Sc., (Nursing) Degree.

Topic: A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem.

I request you to kindly permit her to conduct the study in your esteemed organization from 05.07.2010 to 31.07.2010. She will adhere to the village policies and regulations.

Thanking you.

Yours Sincerely,

3/7/10

(Prof. A. Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing
3/836, Periakalam, Neikkarapatti
SALEM - 636 010

Lette r Seeking Permission to Conduct a Research Study

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

Date : 03-07-2010

To,

The President,
The Village Panchayat Office,
Minnampalli, Salem.

Madam / Sir,

Sub: Permission to conduct a research study request - reg.

This is to introduce **Ms.RENUKA. K** final year M.Sc., (Nursing) student of our college. She is conducting research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirement for the award of M.Sc., (Nursing) Degree.

Topic A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem.

I request you to kindly permit her to conduct the study in your esteemed organization from 05.07.2010 to 31.07.2010. She will adhere to the village policies and regulations.

Thanking you.

Yours Sincerely,

3/7/10

(Prof. A. Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing
3/836, Periakalam, Neikkarapatti
SALEM - 636 010

ANNEXURE - B

TOOL FOR DATA COLLECTION

SECTION - I

DEMOGRAPHIC DETAILS OF THE MOTHERS

Instructions:

The investigator will ask question listed below and put the tick (✍) mark against the response given by the respondent.

Sample No. | | |

Date:……

1. Age in years
    a. ? 20 ✍
    b. 21 – 25 ✍
    c. 26 – 30 ✍
    d. > 30 ✍
2. Educational status
    a. Illiterate ✍
    b. Primary education ✍
    c. Secondary education ✍
    d. Higher education ✍
    e. Under-graduate ✍
    f. Post-graduate ✍
3. Occupation
    a. Home maker ✍
    b. Employee ✍
4. Religion
    a. Hindu ✍
    b. Christian ✍
    c. Muslim ✍
    d. Others ✍

5. Type of family
    a. Nuclear family ✍
    b. Joint family ✍
    c. Extended family ✍
6. Type of Diet
    a. Vegetarian ✍
    b. Non-Vegetarian ✍
7. Gravida
    a. Primigravida ✍
    b. Multigravida ✍

    If multigravida, whether you had morning sickness for previous pregnancy.

        a. Yes ✍
        b. No ✍

            If yes, howlong ……..

8. Weeks of gestation
    a. 4 – 7 weeks ✍
    b. 8 – 12 weeks ✍
    c. 13 – 16 weeks ✍
9. Did your family members had morning sickness, when they pregnant?
    a. Yes ✍
    b. No ✍

    If yes, specify the family member ……..
10. Are you taking any home remedy for morning sickness?
    a. Yes ✍
    b. No ✍

    If yes, list out the remedies used for morning sickness ……

SECTION-II

MODIFIED RHODES INDEX OF NAUSEA AND VOMITING SCALE

STRUCTURED INTERVIEW SCHEDULE TO ASSESS THE LEVEL OF MORNING SICKNESS

S. No	Statement	Score	Put a tick (✍) mark against the response reported
1	When do you get nausea?		
	a. While exposed to any unpleasant smell	1 2	
	b. After eating oily (fatty) foods	3	
	c. While taking food which dislike	4	
	d. In empty stomach		
2	What time does nausea occur?		
	a. In the evening	1	
	b. In the morning	2	
	c. After taking food	3	
	d. Any time of the day	4	
3	How many times does the vomiting occur per day?		
	a. Once	1	
	b. 2 – 4 times	2	
	c. 5 – 6 times	3	
	d. More than 6 times	4	
4	How much do you vomit approximately per episode?		
	a. < 50 ml	1	
	b. 100 ml	2	
	c. 150 ml	3	
	d. More than 150 ml	4	

S. No	Statement	Score	Put a tick (✍) mark against the response reported
5	What do you do after vomiting? a. Drinking fluids immediately b. After rest for short duration will continue the work c. Taking rest for long period with small diet d. Does not take any food and in complete bed rest	 1 2 3 4	

Scoring :

Total score : 20

Interpretation:

Mild nausea and vomiting : 0 – 50%

Moderate nausea and vomiting : 51 – 75%

Severe nausea and vomiting : 76 – 100%

GINGER TEA PREPARATION

Ginger Tea

Ginger has a calming and soothing flavour. It helps to keep you alert and calm. It is excellent for relieving nausea and vomiting. Ginger can be consumed easily in the form of tea by antenatal mothers.

Benefits

1. It helps in digestion
2. It improves circulation
3. It relieves menstrual pain
4. It helps to reduce sinusitis

Equipments

1. Sauce pan
2. Stove
3. Lighter
4. Ginger – 500mg
5. Drinking water – 200ml
6. Sugar as needed.
7. Electronic weighing scale

Procedure

1. Take 500 mg of ginger.
2. Slice the ginger into the small pieces.
3. Take 200ml of water in a saucepan boil the water add slice of ginger into it, again boil for 10-15 minutes, strain it then add sugar.

Notes

1. Administer tea two times / day.
2. Repeat procedure for 5 days.

ghfk - m

mbggil tptuqfis mwpAk Nehfhzygbtk

FwpgG: Muharrpahsh gpdtUk midtUk midjJ jftyfisAk gqNfwgthfsplkpUej Nrfhpjj (✍) vdw Fwpia kpfTk nghUjjkhd itfSfF vjpNuAss flljjpy ,Lthh

Njjp: gqNfwgthvz:

1. taJ (tUlqfspy)

m. 20 kwWk mjwFk fo ✍

M. 21 Kjy 25 tiu ✍

,. 26 Kjy 30 tiu ✍

<. 30 tajpwF Nkwgllthfs ✍

2. fytpjjFjp

m. fytpawpT ,yyhjthfs ✍

M. Mukgffytp ✍

,. cahepiyffytp ✍

<. Nkyepiyffytp ✍

c. ,sepiyglljhhp ✍

C. KJepiyglljhhp ✍

3. Ntiy

m. ,yyjjurp ✍

M. NtiyfF nrygth ✍

4. kjk

m. ,eJ ✍

M. fpwp]Jth ✍

,. ,]yhkpah ✍

<. kwwth ✍

5. FLkg tif

m. jdpfFLkgk ✍

M. $lLfFLkgk ✍

,. tphpthd FLkgk ✍

6. c z Tggo f f k

m. i r t k ✍

M. m i r t k ✍

7. fU j j h gG

m. K j y K i w ✍

M. xUK i w f F Nky ✍

x d w f F Nky v d why› Ke i j a fhggfhy j j y the j Fk l l y , Uej jh?

m. Mk ✍

M. , y i y ✍

Mk v d y› .....

8. fhggfhy j j d thuq f s

m. 4 - 7 thuk ✍

M. 8 - 12 thuk ✍

, . 13 -16 thuk ✍

9. cqfs FLkgj j y c s s thfs vtUffhtJ fhggfhy the jAk› FkllYk , Uej jh?

m. Mk ✍

M. , y i y ✍

Mk v d y› ahUf F .....

10. fhggfhy j j y the jAk› FkllYk tUkNghJ VNjDk tlLi t j j ak g d gww dhf sh?

m. Mk ✍

M. , y i y ✍

Mk v dwhy v d d t i fahd i t j j a K i w .....

ghfk - M

khwwp m i k f f g g l l Nuhl] m l l t i z kwWk t iuaWf f g g l l Nehfh z y

%yk thejp kwWk Fk l l i y m s tpLjy

t. v z	nghUs	kjpgng z	rhpahd gjpYfF bf (✍) khhf , l Tk
1	vgnghOJ cqfSfF Fkl l y tUfpwJ?		
	m. , z q f j j f h j k z j i j EfUknghOJ	1	
	M. n f h O g G (m) v z n z a rhhej nghUs f i s c z l gpwF	2	
	,. gpb f f h j c z T c z Z t j h y	3	
	<. n t Wk tapwwpy	4	
2	vej Neujjpy Fk l l y tUfpwJ?		
	m. k h i y Neujjpy	1	
	M. f h i y Neujjpy	2	
	,. c z T c l n f h z lgpwF	3	
	<. vgnghOJk	4	
3	xU ehisfF vjjid K i w thejp vLffpwhfs?		
	m. 1 K i w	1	
	M. 2 K j y 4 K i w	2	
	,. 5 K j y 6 K i w	3	
	<. 6 K i wfF mjpfkhf	4	
4	xU ehisfF ruhrhpahf v t t s T thejp vLffpwhfs?		
	m. 50 kp.ypfF F i w t h f	1	
	M. 100 kp.yp	2	
	,. 150 kp.yp	3	
	<. 150 kp.ypfF Nkyhf	4	
5	thejp vLjj gpwF v d d nrathfs?		
	m. j z z h Fbjjy	1	
	M. rpwpJ Neuk XaT vLjJ tplL Nt i y f i s nrajy	2	
	,. mjpf Neuk XaT vLjJf nfhs Sjy	3	
	<. c z T c z z hky XaT vLjJf nfhs Sjy	4	

,Qrp rhW nraAk Kiw

cgfuzk

- rpwpa ghjjpuk
- mLgG
- ,Qrp - 500 kp.fp
- Rjjkhd Fbeh - 200 kp.yp
- rhffiuNji tahd msT

nraKiw

- 500 kp.fp msTfF ,Qrpia vLjJf nfhssTk.
- ,Qrpia rpwpa Jz Lfshf eWffTk.
- ghjjpujjpy j z z iu Cwwp nfhjpff itjJ ,Qrp Jz Lfis NghlTk.
- 10-15 epkplqfs nfhjpjj gpwF mjid tbflb Njitahd msT rhffiuia NrhjJ rhggplTk.

gpd FwpgG

- ,Qrp rhwpid xUehisfF ,uzL Kiw nfhLffTk.
- njhlheJ 5 ehlfSfF rhggplL tuTk.

ANNEXURE - C

LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR CONTENT VALIDITY OF THE RESEARCH TOOLS

From

Ms.K. RENUKA.
Final year M.Sc. (N),
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

Respected Sir/ Madam,

Sub: Requesting opinion and suggestions of expert for establishing content validity of the tools.

I, **Ms.K. RENUKA,** Final Year M.Sc. (Nursing) student of Sri Gokulam College of Nursing, Salem. I have selected the topic mentioned below for the research project to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai for the partial fulfillment of Master's Degree in Nursing.

Topic: "A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem".

I wish to request you kindly validate the tool and give your expert opinion for necessary modification. I will be grateful to you for this.

Thanking you

Place: Salem
Date :

Yours sincerely,

(K. RENUKA)

Enclosed:

1. Tool for collection of data
2. Criteria checklist of evaluation of tool
3. Certificate of validation
4. Procedure

ANNEXURE - D

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Ms.RENUKA. K**, Final year M.Sc. Nursing student of Sri Gokulam College of Nursing, Salem (affiliated to The Dr.M.G.R. Medical University) is validated and can proceed with this tool and content for the main study entitled "**A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem**".

Signature with Date

ANNEXURE – E

LIST OF EXPERTS

1. **Dr. P. CHELLAMMAL, M.D., D.G.O.,**
   Consultant, Obstetrician and Gynecologist,
   Sri Gokulam Hospital,
   Salem.

2. **Dr. K. Selvakumari, MD,**
   Consultant Physician,
   Sri Gokulam Hospital,
   Salem.

3. **Mr. M. Kandasamy, M.Sc (N)., Ph.D.,**
   Associate Professor,
   HOD, Community Health Nursing,
   Sri Gokulam College of Nursing,
   Salem.

4. **Mrs. Sumathi, M.Sc(N),**
   Associate Professor,
   HOD, Community Health Nursing
   Vinayaka Mission Annapoorna College of Nursing,
   Salem.

5. **Mr. Kannan, M.Sc, Dietitian.**
   Dietitian,
   Sri Gokulam Hospital,
   Salem.

ANNEXURE – F

CERTIFICATE OF EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled, **"A Study to Determine the Effectiveness of Ginger Tea on Morning Sickness among Antenatal Mothers in Selected Villages, Salem"** by **Ms. Renuka. K, M.Sc (Nursing).** It has been checked for accuracy and correctness of English language usage and that the language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.

SIGNATURE

WINGS
ENGLISH ACADEMY
1,2,3, IInd Floor Ratna Complex,
Five Roads, SALEM-636 004.

ANNEXURE – G

PHOTOS